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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/012,459	12/12/2001	Yong Hyun An	K-0355	7276
34610 7590 07/27/2007 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			EXAMINER SAMS, MATTHEW C	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 07/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/012,459

Applicant(s)

AN ET AL.

Examiner

Matthew C. Sams

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,9-15,19-22,35-37,39-44,46-48 and 50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9-15,19-22,35-37,39-44,46-48 and 50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action is in response to the amendment filed on 5/8/2007.

### ***Response to Arguments***

2. Applicant's arguments filed 5/8/2007 have been fully considered but they are not persuasive.

In response to the applicant's argument regarding "the triangulation method of Johnson does not [take] into consideration a pilot signal received by a mobile communication network as a basis for confirming the location of a customer terminal" (Page 13 Last Para), the examiner disagrees.

The method and system taught by Johnson is designed to communicate, receive signals and provide location dependent information for many devices simultaneously (Fig. 2 [204, 206 & 208]) and continuously (Col. 10 lines 17-19 and Fig. 3B), with the location determining technique known as triangulation. (Fig. 3A and Fig. 3B) Therefore, the system's ability to receive many signals simultaneously and continuously obviously provides the ability to receive a signal from a mobile continuously. Further, triangulation and having a mobile transmit a continuous tone to the surrounding base stations for location determination are well known in the art and can be seen for example in US 2002/0034953 to Tricarico in Para [0031].

Claim 49 has been canceled, so arguments pertaining to claim 49 have been ignored.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4-6, 9-15, 19-22, 35-37, 39-45 and 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shteyn et al. (US-6,782,253 hereinafter, Shteyn) in view of Johnson (US-6,456,234).

Regarding claim 1, Shteyn teaches an information service system comprising:

a database server (Fig. 4 [410]) that receives and stores information on a plurality of different shops within a building; (Col. 8 lines 12-41)

a data transmission server at a prescribed location that communicates with a customer's mobile terminal and automatically radio-transmits a first type of information including the information on the shops to the customer's mobile terminal when the customer enters the building; (Col. 4 lines 18-23 and Col. 7 lines 42-45)

an operation server that controls the database server and the data transmission server; (Fig. 4 [420]) and

a sudden information data transmission device (Fig. 4 [402, 404, 406 & 408]) provided for the shops, wherein the sudden information data transmission device is coupled to control terminals (Fig. 4 [412, 414, 416 & 418]) in the shops, is installed within a predetermined area different from the prescribed location of the data transmission server (Col. 8 lines 12-41), and radio-transmits a second type of

information including sudden event information to the customer's mobile terminal when a sudden event is generated by one of the shops (Col. 6 lines 17-26), the sudden event information transmitted while the customer is within a range of said sudden information data transmission device (Col. 3 lines 1-6, 36-51 and Col. 6 lines 17-26) where reception by the mobile terminal is possible, wherein the first type of information is transmitted at different times and through different wireless transmission links than the second type of information. (Col. 6 lines 17-26 *i.e.* second type, Col. 7 lines 42-45 *i.e.* first type and Col. 8 lines 12-41)

Shteyn teaches the network cell can give a guide of the beacons located within a local geographic area of the mobile phone (Col. 7 lines 38-42) in order to receive the sudden information regarding sales (Col. 4 lines 18-23 & Col. 6 lines 17-26), but differs from the claimed invention by not explicitly reciting that the operation server continuously receives information derived from reception by a mobile communication network of a pilot signal from the mobile phone to confirm a location of the customer within the building.

In an analogous art, Johnson teaches a system designed to communicate, receive signals and provides location dependent information for many devices simultaneously (Fig. 2 [204, 206 & 208]) and continuously (Col. 10 lines 17-19 and Fig. 3B) by triangulating the location of a mobile terminal in order to confirm the location of a customer within a building as a precondition to transmitting the sudden information (*i.e.* CADE "candidate delivery event" Col. 2 lines 16-37 and Col. 9 line 60 through Col. 10 line 7). (Fig. 5A and Col. 11 line 49 through Col. 12 line 11) At the time the invention

was made, it would have been obvious to one of ordinary skill in the art to implement the system of Shteyn after modifying it to incorporate the triangulation of Johnson. One of ordinary skill in the art would have been motivated to do this since triangulating a transmitting signal is a common method in the art to determine the location of a mobile terminal because GPS circuitry is not accurate within buildings without requiring additional equipment to retransmit the satellite signals within the building.

Regarding claim 2, Shteyn in view of Johnson teaches a radio data transmitter/receiver is installed in the data transmission server (Shteyn Col. 4 lines 18-23 and Col. 7 lines 42-45) and the customer's mobile terminal (Shteyn Col. 3 lines 39-41), respectively, for a mutual radio data transmission/reception. (Shteyn Col. 3 lines 1-51)

Regarding claim 4, Shteyn in view of Johnson teaches the sudden information data transmission device communicates by a short-distance radio transmission. (Shteyn Col. 3 lines 1-51 and Col. 8 lines 12-41)

Regarding claim 5, Shteyn in view of Johnson teaches a radio data transmitter/receiver is installed in the sudden information data transmission device to support the radio transmission. (Shteyn Col. 8 lines 12-41)

Regarding claim 6, Shteyn in view of Johnson teaches the prescribed location is within the building. (Shteyn Col. 6 lines 17-26 & Col. 7 lines 33-54)

Regarding claim 9, Shteyn in view of Johnson teaches the data transmission server communicates directly with the customer's mobile terminal. (Shteyn Col. 4 lines 18-23 and Col. 7 lines 38-45)

Regarding claim 10, Shteyn in view of Johnson teaches the data transmission server communicates indirectly with the customer's mobile terminal. (Shteyn Col. 3 lines 17-35, Col. 7 lines 38-50 and Col. 8 line 42 through Col. 9 line 24)

Regarding claim 11, Shteyn in view of Johnson teaches the data transmission server communicates with the customer's mobile terminal through a third-party wireless communication gateway. (Shteyn Col. 3 lines 17-51 and Col. 8 line 42 through Col. 9 line 24)

Regarding claim 12, Shteyn teaches a method of operating an information service system, comprising:

determining whether a potential customer enters a building that includes a plurality of shops; (Col. 7 lines 38-45)

obtaining general information about a product of a vendor corresponding to one of the shops from a database server; (Col. 7 lines 42-45)

automatically transmitting the general information between a data transmission server and a customer's mobile terminal when the potential customer enters the building; (Col. 4 lines 18-23 and Col. 7 lines 42-45)

receiving sudden event information from a network of a specified vendor, if a sudden event is generated by the specified vendor; (Col. 6 lines 17-26 & Col. 8 lines 12-41) and

registering the received event information in the database server (Fig. 4 [410]) and radio transmitting the sudden event information from a sudden information data transmission device to the customer's mobile terminal (Col. 8 lines 26-39), the sudden

information data transmission device (Fig. 4 [402-408]) coupled to a control terminal in the vendor's shop (Fig. 4 [412-418]) and being located in an area different from the data transmission server (Col. 7 lines 42-54), and

wherein the sudden event information transmitted when the customer is located within a range of said sudden information data transmission device where reception by the mobile terminal is possible (Col. 3 lines 1-6, 36-51 and Col. 6 lines 17-26),

wherein the sudden event information is transmitted at different times and through different wireless links than the general information. (Col. 6 lines 17-26 *i.e.* second type, Col. 7 lines 42-45 *i.e.* first type and Col. 8 lines 12-41)

Shteyn teaches the network cell can give a guide of the beacons located within a local geographic area of the mobile phone (Col. 7 lines 38-42) in order to receive the sudden information regarding sales (Col. 4 lines 18-23 & Col. 6 lines 17-26), but differs from the claimed invention by not explicitly reciting that the operation server continuously receives information derived from reception by a mobile communication network of a pilot signal from the mobile phone to confirm a location of the customer within the building.

In an analogous art, Johnson teaches a system designed to communicate, receive signals and provides location dependent information for many devices simultaneously (Fig. 2 [204, 206 & 208]) and continuously (Col. 10 lines 17-19 and Fig. 3B) by triangulating the location of a mobile terminal in order to confirm the location of a customer within a building as a precondition to transmitting the sudden information (*i.e.* CADE candidate delivery event Col. 2 lines 16-37 and Col. 9 line 60 through Col. 10 line



7). (Fig. 5A and Col. 11 line 49 through Col. 12 line 11) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the system of Shteyn after modifying it to incorporate the triangulation of Johnson. One of ordinary skill in the art would have been motivated to do this since triangulating a transmitting signal is a common method in the art to determine the location of a mobile terminal because GPS circuitry is not accurate within buildings without requiring additional equipment to retransmit the satellite signals within the building.

Regarding claim 13, Shteyn in view of Johnson teaches the data transmission server transmits the general information to the mobile terminal by a wired or a radio medium. (Shteyn Col. 4 lines 18-23 and Col. 7 lines 38-45)

Regarding claim 14, Shteyn in view of Johnson teaches receiving customer information, regarding the mobile terminal, with the data transmission server while transmitting the general information to the mobile terminal. (Shteyn Col. 7 lines 33-54)

Regarding claim 15, Shteyn in view of Johnson teaches the customer information comprises at least one of a phone number of the mobile terminal and an Internet Protocol (IP) used by the mobile terminal. (Shteyn Col. 2 lines 42-44 and Col. 10 lines 61-67)

Regarding claim 19, the limitations of claim 19 are rejected as being the same reason set forth above in claim 9.

Regarding claim 20, the limitations of claim 20 are rejected as being the same reason set forth above in claim 10.

Regarding claim 21, the limitations of claim 21 are rejected as being the same reason set forth above in claim 11.

Regarding claim 22, Shteyn teaches a method of operating an information service system comprising:

confirming entry of a customer into a building containing a plurality of shops;  
(Col. 7 lines 38-45)

automatically obtaining information from a mobile terminal of the customer regarding the mobile terminal when the customer enters the building, and registering the obtained information in a database server; (Col. 7 lines 42-54)

awaiting a sudden event from a vendor in the building; (Col. 3 lines 56-62 and Col. 6 lines 17-26) and

obtaining sudden event information and transmitting the obtained sudden event information to the customer's mobile terminal (Col. 6 lines 17-26 and Col. 8 lines 12-41), in the building, when the sudden event arrives from the vendor,

wherein the sudden event information is radio-transmitted to the customer's mobile terminal, located within a range where reception by the mobile terminal is possible (Col. 3 lines 1-6, 36-51 and Col. 6 lines 17-26), by controlling a respective sudden information data transmission section installed within the building,

wherein the sudden event information is transmitted to indicate a sudden sale occurring in the building (Col. 6 lines 17-22), wherein the sudden event information is transmitted over different wireless links than planned event or basic information are

transmitted to the customer's mobile terminal. (Col. 6 lines 17-26 *i.e.* second type, Col. 7 lines 42-45 *i.e.* first type and Col. 8 lines 12-41)

Shteyn teaches the network cell can give a guide of the beacons located within a local geographic area of the mobile phone (Col. 7 lines 38-42) in order to receive the sudden information regarding sales (Col. 4 lines 18-23 & Col. 6 lines 17-26), but differs from the claimed invention by not explicitly reciting that the operation server continuously receives information derived from reception by a mobile communication network of a pilot signal from the mobile phone to confirm a location of the customer within the building.

In an analogous art, Johnson teaches a system designed to communicate, receive signals and provides location dependent information for many devices simultaneously (Fig. 2 [204, 206 & 208]) and continuously (Col. 10 lines 17-19 and Fig. 3B) by triangulating the location of a mobile terminal in order to confirm the location of a customer within a building as a precondition to transmitting the sudden information (*i.e.* CADE candidate delivery event Col. 2 lines 16-37 and Col. 9 line 60 through Col. 10 line 7). (Fig. 5A and Col. 11 line 49 through Col. 12 line 11) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the system of Shteyn after modifying it to incorporate the triangulation of Johnson. One of ordinary skill in the art would have been motivated to do this since triangulating a transmitting signal is a common method in the art to determine the location of a mobile terminal because GPS circuitry is not accurate within buildings without requiring additional equipment to retransmit the satellite signals within the building.

Regarding claims 35-37, Shteyn in view of Johnson teaches the sudden event information includes a short-term discount selling or issuance of discount tickets. (Shteyn Col. 6 lines 17-22)

Regarding claim 39, Shteyn in view of Johnson teaches the data transmission server is located at an entrance into the building. (Shteyn Col. 4 lines 17-22 & Col. 7 lines 38-45)

Regarding claim 40, Shteyn in view of Johnson teaches the database server (Shteyn Fig. 4 [410]) receives a selection signal from a store manager indicating a type of said stored information. (Shteyn Col. 8 lines 12-58)

Regarding claim 41, Shteyn in view of Johnson teaches the stored information is basic information or event information of the store. (Shteyn Col. 7 lines 42-45 and Col. 8 lines 12-58)

Regarding claim 42, Shteyn in view of Johnson teaches the first and second types of information are transmitted through different wireless links which conform to a same short-range communication protocol. (Shteyn Col. 6 lines 17-26 *i.e.* second type, Col. 7 lines 38-45 *i.e.* first type and Col. 8 line 54 through Col. 9 line 24)

Regarding claim 43, Shteyn in view of Johnson teaches the mobile terminal includes a wireless communications port for receiving the first and second types of information through the different links and an antenna for receiving calls from a mobile communication network. (Shteyn Col. 3 lines 17-20, 36-51 and Col. 8 line 51 through Col. 9 line 24)

Regarding claim 44, Shteyn in view of Johnson teaches the short-range communication protocol is a Bluetooth protocol or an infrared protocol. (Shteyn Col. 3 lines 36-51)

Regarding claim 46, Shteyn in view of Johnson teaches the mobile terminal is a mobile phone. (Shteyn Col. 7 lines 38-42)

Regarding claim 47, Shteyn in view of Johnson teaches the data transmission server automatically radio-transmits the first type of information in response to a customer request for the first type of information. (Shteyn Col. 4 line 17-22 & Col. 7 lines 33-54 and Johnson Col. 17 lines 11-24 *i.e.* User Event Management directly caused by a user)

Regarding claim 48, Shteyn in view of Johnson teaches the customer request is made based on the customer's manipulation of the mobile terminal or the data transmission server. (Shteyn Col. 7 lines 33-54 *i.e.* explicitly select a profile and Johnson Col. 17 lines 11-24 *i.e.* User Event Management directly caused by a user)

Regarding claim 50, Shteyn in view of Johnson teaches the sudden information includes a sudden promotional or sale event beginning in one of the shops, and wherein transmission of the sudden information is initiated after a confirmation has been performed indicating that the customer has entered and is still located in the building. (Shteyn Col. 3 lines 56-62 & Col. 6 lines 17-26)

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 2002/0034953 to Tricarico regarding a triangulation method

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCS  
7/12/2007



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